

## **REMARKS**

Claims 16, 18-47 and 49-56 have been canceled without prejudice or disclaimer. Claims 57-74 have been added and therefore are pending in the instant application. Support for the new claims appears throughout the specification and claims as filed.

The Cross-Reference to Related Applications section of the specification has been amended to correct the filing date of a Danish priority application.

It is respectfully submitted that the present amendment presents no new issues or new matter and places this case in condition for allowance. Reconsideration of the application in view of the above amendments and the following remarks is requested.

### **I. The Objection to Claim 16**

The Office objected to claim 16 because a comma immediately follows the position number 61 and two commas follow the “S” in the substitution V203S. Claim 16 has been canceled without prejudice or disclaimer. Therefore, this objection is rendered moot.

### **II. The Rejection of Claims 16, 18, 32, 39, and 51-54 under 35 U.S.C. 102**

Claims 16-18, 35, 50 and 53-54 stand rejected under 35 U.S.C. 102(b) as allegedly anticipated by Brode et al. (U.S. Patent No. 6,599,730). This rejection is respectfully traversed.

The Brode et al. patent is said to disclose subtilisin 309 variants comprising a substitution at positions 61 and 62.

However, the Brode et al. patent does not disclose subtilase variants comprising a substitution at position 9 with Arg and a substitution at position 62 with Asp, as claimed herein.

For the foregoing reasons, Applicants submit that the claims overcome the rejection under 35 U.S.C. 102. Applicants respectfully request reconsideration and withdrawal of the rejection.

### **III. The Rejection of the Claims under 35 U.S.C. 103**

Claims 16, 18, 37, and 51-54 are rejected under 35 U.S.C. 103(a) as allegedly obvious over Brode et al. (U.S. Patent No. 6,599,730) in view of van Eekelen et al. (U.S. Patent No. 5,336,611) and Mullenens et al. (U.S. Patent No. 6,287,841). Claims 16, 18, 19, 47, and 50-54 are rejected under 35 U.S.C. 103(a) as allegedly obvious over Brode et al. (U.S. Patent Nos. 6,436,690, 6,455,295, 6,475,765 or 6,599,730 (hereinafter “the Brode et al. patents”)) in view of Bryan et al. (U.S. Patent No. 5,567,601). Claims 16, 18, 43, and 51-54 are rejected under 35 U.S.C. 103(a) as allegedly obvious over any of the Brode et al. patents and Christianson et al. (U.S. Patent No. 5,500,364). Claims 16, 18, 21-24, 26, 27, 31, 41, 45-47, 51-54, and 56 are

rejected under 35 U.S.C. 103(a) as allegedly obvious over any of the Brode et al. patents and Ghosh (U.S. Patent No. 6,376,450). Claims 16, 18, 20, 22, 46, and 50-54 are rejected under 35 U.S.C. 103(a) as allegedly obvious over any of the Brode et al. patents and von der Osten et al. (U.S. Patent No. 6,245,901). Claims 16, 18, 33, and 50-54 are rejected under 35 U.S.C. 103(a) as allegedly obvious over any of the Brode et al. patents and von der Osten et al. (U.S. Patent No. 6,300,116). Claims 16, 18, 24, 29, 46, and 50-54 are rejected under 35 U.S.C. 103(a) as allegedly obvious over any of the Brode et al. patents in view of Poulouse et al. (U.S. Patent No. 7,306,937). Claims 16, 18, 23, 24, 28, 29, 35, 36, 38, 39, and 50-54 are rejected under 35 U.S.C. 103(a) as allegedly obvious over any of the Brode et al. patents in view of Estell et al. (U.S. Patent No. 7,322,320). These rejections are respectfully traversed.

The Brode et al. patents are said to disclose subtilisin 309 variants comprising a substitution at positions 61 and 62.

However, the Brode et al. patents do not teach or suggest subtilase variants comprising a substitution at position 9 with Arg and a substitution at position 62 with Asp, as claimed herein.

The secondary references disclose protease variants. However, these references also do not teach or suggest subtilase variants comprising a substitution at positions 9 and 62.

For the foregoing reasons, Applicants submit that the claims overcome the rejections under 35 U.S.C. 103. Applicants therefore respectfully request reconsideration and withdrawal of the rejections.

#### **IV. The Rejection of Claims 16, 18, 20, 21, 25, 41, 50 and 52-54 under 35 U.S.C. 103**

Claims 16-18, 35, 50 and 53-54 stand rejected under 35 U.S.C. 103(a) as allegedly obvious over any of the Brode et al. patents in view of Ketting et al. (US 2003/0157645). This rejection is respectfully traversed.

As discussed above, the Brode et al. patents do not teach or suggest subtilase variants comprising a substitution at position 9 with Arg and a substitution at position 62 with Asp, as claimed herein.

Ketting et al. disclose subtilisin variants comprising at least one mutation selected from (a) E54D or E54G, (b) Q103R or Q103K, (c) T133K, (d) E156K or E156A, and (e) Y217H. The subtilisin variants may further comprise a mutation at position 9 such as the substitution S9A or S9P.

However, Ketting et al. do not teach or suggest subtilisin variants comprising a substitution at position 9 with Arg and/or a substitution at position 62 with Asp.

For the foregoing reasons, Applicants submit that the claims overcome this rejection under 35 U.S.C. 103. Applicants respectfully request reconsideration and withdrawal of the rejection.

**V. The Rejection of Claims 16, 18-28, 30, 32-40, 42-47, and 50-54 under 35 U.S.C. 103**

Claims 16, 18-28, 30, 32-40, 42-47, and 50-54 stand rejected under 35 U.S.C. 103(a) as allegedly obvious over any of the Brode et al. patents in view of Roggen et al. (US 2005/0181446). This rejection is respectfully traversed.

As discussed above, the Brode et al. patents do not teach or suggest subtilase variants comprising a substitution at position 9 with Arg and a substitution at position 62 with Asp, as claimed herein.

Roggen et al. disclose protein variants having reduced immunogenicity such as protease variants. Roggen et al. further disclose subtilisin variants comprising a substitution at position 9 with G, V, L, I, W, P, M, F, Q, Y, S, T, R, H.

However, Roggen et al. do not teach or suggest subtilisin variants comprising a substitution at position 9 with Arg and a substitution at position 62 with Asp, as claimed herein.

Moreover, the instant specification demonstrates that subtilisin variants comprising a substitution at position 9 with Arg and a substitution at position 62 with Asp have good wash performance. See the results in Table V on page 47 (the third and fourth variants in the table), page 48 (the twelfth variant on the page), page 50 (the fourth, fifth and sixth variants on the page), page 52 (the second variant on the page), and page 53 (the fifth-to-last variant on the page); the results in Table VI on page 58 (the tenth, eleventh, and twelfth variants on the page); and the results in Table VII on page 60. These results are not predicted by the prior art. Therefore, the results are surprising and unexpected.

For the foregoing reasons, Applicants submit that the claims overcome this rejection under 35 U.S.C. 103. Applicants respectfully request reconsideration and withdrawal of the rejection.

## **VI. Conclusion**

In view of the above, it is respectfully submitted that all claims are in condition for allowance. Early action to that end is respectfully requested. The Examiner is hereby invited to contact the undersigned by telephone if there are any questions concerning this amendment or application.

Please charge all required fees to Novozymes North America, Inc.'s Deposit Account No. 50-1701 at the time of electronic filing. The USPTO is authorized to charge this Deposit Account should any additional fees be due.

Respectfully submitted,

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